

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of)
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	Ryuzo Iga et al.)
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Serial No.:	10/577,626) Art Unit
) 2828
Filed:	April 28, 2006)
)
Confirmation No.:	9935)
)
For:	SEMICONDUCTOR OPTICAL DEVICE AND)
	A METHOD OF FABRICATING THE SAME)

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. § 1.97

Commissioner for Patents
PO Box 1450
Alexandria, Virginia 22313-1450

Sir:

Please find, pursuant to 37 C.F.R. § 1.98(a)(1), the enclosed Form PTO-1449 which contains a list of all patents, publications, or other items that have come to the attention of one or more of the individuals designated in 37 C.F.R. § 1.56(c). While no representation is made that these references may be "prior art" within the meaning of that term under 35 U.S.C. §§ 102 or 103, the enclosed listed references are disclosed so as to fully comply with the duty of disclosure set forth in 37 C.F.R. § 1.56.

Moreover, while no representation is made that a specific search of office files or patent office records has been conducted or that no better art exists, the undersigned attorney of record believes that the enclosed art is the closest to the claimed invention (taken in its entirety) of which the undersigned is presently aware, and no art which is closer to the claimed invention (taken in its entirety) has been knowingly withheld.

In accordance with 37 C.F.R. §§ 1.97 and 1.98, a copy of each of the listed references or relevant portion thereof that is not a US patent document is also enclosed.

Statement of Relevance of References Listed
Unaccompanied by English Translation
Under 37 CFR § 1.98(a)(3)

In accordance with 37 CFR § 1.98(a)(3), the following concise explanation of the relevance of each listed reference that is not in the English language and unaccompanied by a translation into English is provided.

Japanese Publication No. 2000-307195: **PROBLEM TO BE SOLVED**: To provide a semiconductor light emitting element, such as a high- output red semiconductor laser which stably oscillates in 635-nm band, 650-nm band, etc., at a high temperature, a visible semiconductor laser which oscillates at a wavelength shorter than 600 nm at a room temperature, a visible light emitting diode having a high luminous efficiency, etc. **SOLUTION**: The active layer 2 of a semiconductor light emitting element is composed of $(\text{Al}_x\text{Ga}_{1-x})\alpha\text{In}_{1-\alpha}\text{PtAs}_{1-t}$ ($0 \leq x < 1$, $0 < \alpha \leq 1$, $0 \leq t < 1$) and the clad layers 3 of the element are composed of $(\text{Al}_y\text{Ga}_{1-y})\beta\text{In}_{1-\beta}\text{PvAs}_{1-v}$ ($0 < y \leq 1$, $0.5 < \beta < 1$, $0 < v \leq 1$) having a band gap larger than that of the active layer 2 and containing Al having a lattice constant between those of GaP and GaAs.

Japanese Publication No. 08-250808: **PURPOSE**: To reduce leakage currents in a semiconductor device to improve the output of the device by forming an n-type current block layer containing a specific amount of Se as an impurity and p-type current block layer so that the n-type block layer cannot come into contact with an n-type clad layer. **CONSTITUTION**: On a surface of a p-type InP substrate 1, a mesa stripe is formed and a p-type InP buffer layer 2, an InGaAs active layer 3, and an n-type InP clad layer 4 are formed. In addition, n-type InP buried layers 5 and n-type current block layers 6 are also formed. The current block layers 6 contain Se as an impurity at the concentration of about $8 \times 10^{17} \text{cm}^{-3}$. Then p-type InP clad layers 7 are separately formed on the layers 6 so that the layers 7 cannot come into contact with the layers 6. Then an n-type InP clad layer 8, n-type InGaAs contact layer 9, and n-type electrode 10 are formed.

Non-Prior Art References

The following reference is not prior art, but is listed herein for the Examiner's consideration:

Official Notice of Rejection from related Japanese Application No. 2006-508515 dated July 7, 2008 (English translation enclosed).

Dated this 17th day of November 2008.

Respectfully submitted,

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